

Appl No.: 10/692,232
Amdt. dated April 8, 2005
Reply to Office action of January 11, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended): The integrated circuit of claim ~~[[1]]~~9 wherein the integrated circuit is a monolithic microwave integrated circuit (MMIC).
3. (Currently Amended): The integrated circuit of claim ~~[[1]]~~9 wherein the integrated circuit is a radio frequency integrated circuit (RFIC).
4. (Currently Amended): The integrated circuit amplifier of claim ~~[[1]]~~9 wherein the input signal is an RF input signal.
5. (Currently Amended): The integrated circuit amplifier of claim ~~[[1]]~~9 wherein the phase shifting element is a 90 degree phase shifting element.
6. (Currently Amended): The integrated circuit amplifier of claim ~~[[1]]~~9 wherein the impedance transformer element is a quarter wavelength impedance transformer element.
7. (Currently Amended): The integrated circuit amplifier set forth in claim ~~[[1]]~~9, wherein the impedance transformer is a lumped element of inductance and capacitance elements.
8. (Canceled)
9. (Currently Amended): ~~The An~~ integrated circuit amplifier of claim ~~8~~ comprising:
 - a signal input element for receiving an input signal;
 - a main amplifying element having an input and an output wherein the input is operatively coupled to receive the input signal;

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a phase shifting element having an input and an output wherein the input is operative connected to receive the input signal and the phase shifting element is suitably adapted to create a phase shifted signal from the input signal;

an auxiliary amplifying element having an input and an output wherein the input is operatively coupled to receive the phase shifted signal from the phase shifting element;

an impedance transformer element having an input and an output wherein the input is operatively coupled to receive the main amplifier output; and

a signal output element coupled to the output of the auxiliary amplifier and the output of the impedance transformer element for providing an output of the integrated circuit amplifier.

wherein the auxiliary amplifying element includes a bias circuit for biasing an amplifier transistor having a control terminal, a current-sink terminal, and a current-source terminal;

wherein the bias circuit comprises:

a bias transistor including a control terminal, current-sink terminal, and a current-source terminal;

a first DC input port connected to the current sink terminal of the bias transistor;

a first resonator element operatively coupled to the current-sink terminal of the bias transistor and ground;

a second DC input port connected to the control terminal of the bias transistor;

a diode element operatively coupled to the control terminal of the bias transistor and ground;

a second resonator element operatively coupled to the control terminal of the bias transistor and ground; and

a resistive element operatively coupled to the current source terminal of the bias transistor and the control terminal of the amplifier transistor.

10. (Original): The circuit as set forth in claim 9 wherein the bias transistor is one of a BJT, an HBT and a FET.

11. (Original): The circuit as set forth in claim 9 wherein the amplifier transistor is one of a BJT, an HBT and a FET.

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12. (Original): The circuit as set forth in claim 9 wherein the first resonator is an RLC circuit.

13. (Original): The circuit as set forth in claim 9 wherein the diode element comprises a plurality of diodes.

14. (Original): The circuit as set forth in claim 9 wherein the second resonator is an RLC circuit.

15. (Original): The circuit as set forth in claim 9 wherein the resistive element is a resistor.

16. (Original): The circuit as set forth in claim 9 wherein the resistive element is an RLC circuit.

Claims 17-23 (Canceled)